CLAIMS

Therefore, having thus described the invention, at least the following is claimed:

1   1.   A method for providing an automated diagnostic audit for a cluster

2   computer system, the cluster computer system comprising a plurality of nodes, each of

3   the plurality of nodes providing a mission-critical application to a plurality of clients,

4   the method comprising:

5   receiving information associated with the cluster computer system, the

6   information comprising a plurality of system configuration parameters for each of the

7   plurality of nodes in the cluster computer system;

8   defining a plurality of system configuration categories associated with the

9   plurality of system configuration parameters;

10   defining a threshold benchmark for each of the plurality of system

11   configuration categories, each of the plurality of threshold benchmarks based on a

12   predefined set of rules;

13   associating each of a portion of the plurality of system configuration

14   parameters for each of the plurality of nodes with one of the plurality of system

15   configuration categories; and

16   generating audit information, the audit information based on a comparison of

17   each of the portion of the plurality of system configuration parameters for each of the

18   plurality of nodes to the threshold benchmark for the associated system configuration

19   category.

1   2.   The method of claim 1, wherein each of at least a portion of the

2   plurality of system configuration parameters are redundantly collected.

1   3.   The method of claim 1, further comprising providing the audit

2   information to a network management entity associated with the cluster computer

3   system.

1 4. The method of claim 1, wherein the plurality of system configuration
2 categories comprise a processing parameter, a storage parameter, a network
3 parameter, an operating system parameter, an applications parameter, and a user
4 parameter.

1 5. The method of claim 1, wherein the plurality of system configuration
2 categories comprise a processing parameter, a random access memory (RAM)
3 parameter, a virtual memory parameter, a disk storage parameter, a network
4 parameter, an operating system parameter, an applications parameter, and a user
5 parameter.

1 6. The method of claim 1, wherein the plurality of threshold benchmarks
2 involve a relative ranking process.

1 7. The method of claim 1, wherein the plurality of threshold benchmarks
2 are normalized thresholds based on a distribution of historical data.

1 8. The method of claim 3, wherein the audit information provided to the
2 network management entity is configured to be presented on a graphical user
3 interface.

1 9. The method of claim 3, wherein the receiving the information
2 associated with the cluster computer system and the providing the audit information
3 are via a communications network.

1 10. The method of claim 3, further comprising receiving payment for
2 providing the audit information.

1   11.   A system for providing an automated diagnostic audit for a cluster

2   computer system, the cluster computer system comprising a plurality of nodes, each of

3   the plurality of nodes providing a mission-critical application to a plurality of clients,

4   the system comprising:

5   means for receiving information associated with the cluster computer system,

6   the information comprising a plurality of system configuration parameters for each of

7   the plurality of nodes in the cluster computer system;

8   means for defining a plurality of system configuration categories associated

9   with the plurality of system configuration parameters;

10   means for defining a threshold benchmark for each of the plurality of system

11   configuration categories, each of the plurality of threshold benchmarks based on a

12   predefined set of rules;

13   means for associating each of a portion of the plurality of system configuration

14   parameters for each of the plurality of nodes with one of the plurality of system

15   configuration categories; and

16   means for generating audit information, the audit information based on a

17   comparison of each of the portion of the plurality of system configuration parameters

18   for each of the plurality of nodes to the threshold benchmark for the associated system

19   configuration category.

1   12.   The method of claim 11, wherein each of at least a portion of the

2   plurality of system configuration parameters are redundantly collected.

1   13.   The system of claim 11, further comprising means for providing the

2   audit information to a network management entity associated with the cluster

3   computer system.

1   14.   The system of claim 11, wherein the plurality of system configuration

2   categories comprise a processing parameter, a storage parameter, a network

3   parameter, an operating system parameter, an applications parameter, and a user

4   parameter.

1   15.   The system of claim 11, wherein the plurality of system configuration

2   categories comprise a processing parameter, a random access memory (RAM)

3   parameter, a virtual memory parameter, a disk storage parameter, a network

4   parameter, an operating system parameter, an applications parameter, and a user

5   parameter.

1   16.   The system of claim 11, wherein the audit information provided to the

2   network management entity is configured to be presented on a graphical user

3   interface.

1   17.   The system of claim 11, wherein the receiving the information

2   associated with the cluster computer system and the providing the audit information

3   are via a communications network.

1   18.   The system of claim 11, wherein the plurality of threshold benchmarks

2   involve a relative ranking process.

1   19.   The system of claim 11, wherein the plurality of threshold benchmarks

2   are normalized thresholds based on a distribution of historical data.

1   20.   The system of claim 13, further comprising means for receiving

2   payment for providing the audit information.

1   21.   A computer-readable medium for providing an automated diagnostic
2   audit for a cluster computer system, the cluster computer system comprising a
3   plurality of nodes, each of the plurality of nodes providing a mission-critical
4   application to a plurality of clients, the computer-readable medium comprising:
5   a first portion of logic configured to receive information associated with the
6   cluster computer system, the information comprising a plurality of system
7   configuration parameters for each of the plurality of nodes in the cluster computer
8   system;
9   a second portion of logic configured to define a plurality of system
10   configuration categories associated with the plurality of system configuration
11   parameters;
12   a third portion of logic configured to define a threshold benchmark for each of
13   the plurality of system configuration categories, each of the plurality of threshold
14   benchmarks based on a predefined set of rules;
15   a fourth portion of logic configured to associate each of a portion of the
16   plurality of system configuration parameters for each of the plurality of nodes with
17   one of the plurality of system configuration categories; and
18   a fifth portion of logic configured to generate audit information, the audit
19   information based on a comparison of each of the portion of the plurality of system
20   configuration parameters for each of the plurality of nodes to the threshold benchmark
21   for the associated system configuration category.

1   22.   The computer-readable medium of claim 21, wherein each of at least a
2   portion of the plurality of system configuration parameters are redundantly collected.

1   23.   The computer-readable medium of claim 21, further comprising a sixth
2   portion of logic configured to provide the audit information to a network management
3   entity associated with the cluster computer system.

1   24.   The computer-readable medium of claim 21, wherein the plurality of
2   system configuration categories comprise a processing parameter, a storage parameter,
3   a network parameter, an operating system parameter, an applications parameter, and a
4   user parameter.

1   25.   The computer-readable medium of claim 21, wherein the plurality of
2   system configuration categories comprise a processing parameter, a random access
3   memory (RAM) parameter, a virtual memory parameter, a disk storage parameter, a
4   network parameter, an operating system parameter, an applications parameter, and a
5   user parameter.

1   26.   The computer-readable medium of claim 21, wherein the plurality of
2   threshold benchmarks involve a relative ranking process.

1   27.   The computer-readable medium of claim 21, wherein the plurality of
2   threshold benchmarks are normalized thresholds based on a distribution of historical
3   data.

1   28.   The computer-readable medium of claim 23, wherein the audit
2   information provided to the network management entity is configured to be presented
3   on a graphical user interface.

1   29.   The computer-readable medium of claim 23, wherein the receiving the
2   information associated with the cluster computer system and the providing the audit
3   information are via a communications network.

1   30.   The computer-readable medium of claim 23, further comprising a
2   seventh portion of logic configured to receive payment for providing the audit
3   information.

1   31.   A method for providing an automated diagnostic audit for a cluster

2   computer system, the cluster computer system comprising a plurality of nodes, each of

3   the plurality of nodes providing a mission-critical application to a plurality of clients,

4   the method comprising:

5   collecting information associated with the cluster computer system, the

6   information comprising a plurality of system configuration parameters for each of the

7   plurality of nodes in the cluster computer system;

8   providing the information associated with the cluster computer system to an

9   application service provider; and

10   receiving diagnostic audit information generated by the application service

11   provider, the diagnostic audit information corresponding to at least a portion of the

12   information associated with the cluster computer system and determined by:

13   defining a plurality of system configuration categories associated with the

14   plurality of system configuration parameters;

15   defining a threshold benchmark for each of the plurality of system

16   configuration categories, each of the plurality of threshold benchmarks based on a

17   predefined set of rules;

18   associating each of a portion of the plurality of system configuration

19   parameters for each of the plurality of nodes with one of the plurality of system

20   configuration categories; and

21   comparing each of the portion of the plurality of system configuration

22   parameters for each of the plurality of nodes to the threshold benchmark for the

23   associated system configuration category.

1   32.   The method of claim 31, wherein each of at least a portion of the

2   plurality of system configuration parameters are redundantly collected.

1   33.   The method of claim 31, wherein the plurality of system configuration

2   categories comprise a processing parameter, a storage parameter, a network

3   parameter, an operating system parameter, an applications parameter, and a user

4   parameter.

1   34.   The method of claim 31, wherein the plurality of system configuration

2   categories comprise a processing parameter, a random access memory (RAM)

3   parameter, a virtual memory parameter, a disk storage parameter, a network

4   parameter, an operating system parameter, an applications parameter, and a user

5   parameter.

1   35.   The method of claim 31, wherein the plurality of threshold benchmarks

2   involve a relative ranking process.

1   36.   The method of claim 31, wherein the plurality of threshold benchmarks

2   are normalized thresholds based on a distribution of historical data.

1   37.   The method of claim 31, further comprising presenting the audit

2   information on a graphical user interface.

1   38.   The method of claim 31, wherein the providing the information

2   associated with the cluster computer system to an application service provider is via

3   electronic mail.

1   39.   The method of claim 31, wherein the providing the information

2   associated with the cluster computer system to an application service provider is via

3   the Internet.

1   40.   The method of claim 31, further comprising paying for the diagnostic

2   audit information.

1   41.   A system for providing an automated diagnostic audit for a cluster

2   computer system, the cluster computer system comprising a plurality of nodes, each of

3   the plurality of nodes providing a mission-critical application to a plurality of clients,

4   the system comprising:

5   means for collecting information associated with the cluster computer system,

6   the information comprising a plurality of system configuration parameters for each of

7   the plurality of nodes in the cluster computer system;

8   means for providing the information associated with the cluster computer

9   system to an application service provider; and

10   means for receiving diagnostic audit information generated by the application

11   service provider, the diagnostic audit information corresponding to at least a portion

12   of the information associated with the cluster computer system and determined by:

13   defining a plurality of system configuration categories associated with the

14   plurality of system configuration parameters;

15   defining a threshold benchmark for each of the plurality of system

16   configuration categories, each of the plurality of threshold benchmarks based on a

17   predefined set of rules;

18   associating each of a portion of the plurality of system configuration

19   parameters for each of the plurality of nodes with one of the plurality of system

20   configuration categories; and

21   comparing each of the portion of the plurality of system configuration

22   parameters for each of the plurality of nodes to the threshold benchmark for the

23   associated system configuration category.

1   42.   The system of claim 41, wherein each of at least a portion of the

2   plurality of system configuration parameters are redundantly collected.

1   43.   The system of claim 41, wherein the plurality of system configuration
2   categories comprise a processing parameter, a storage parameter, a network
3   parameter, an operating system parameter, an applications parameter, and a user
4   parameter.

1   44.   The system of claim 41, wherein the plurality of system configuration
2   categories comprise a processing parameter, a random access memory (RAM)
3   parameter, a virtual memory parameter, a disk storage parameter, a network
4   parameter, an operating system parameter, an applications parameter, and a user
5   parameter.

1   45.   The system of claim 41, wherein the plurality of threshold benchmarks
2   involve a relative ranking process.

1   46.   The system of claim 41, wherein the plurality of threshold benchmarks
2   are normalized thresholds based on a distribution of historical data.

1   47.   The system of claim 41, further comprising means for presenting the
2   audit information on a graphical user interface.

1   48.   The system of claim 41, wherein the information associated with the
2   cluster computer system is provided to the application service provider via electronic
3   mail.

1   49.   The system of claim 41, wherein the information associated with the
2   cluster computer system is provided to the application service provider via the
3   Internet.

1   50.   The system of claim 41, further comprising paying for the diagnostic
2   audit information.

1   51. A computer-readable medium for providing an automated diagnostic

2 audit for a cluster computer system, the cluster computer system comprising a

3 plurality of nodes, each of the plurality of nodes providing a mission-critical

4 application to a plurality of clients, the computer-readable medium comprising:

5   a first portion of logic configured to collect information associated with the

6 cluster computer system, the information comprising a plurality of system

7 configuration parameters for each of the plurality of nodes in the cluster computer

8 system;

9   a second portion of logic configured to provide the information associated

10 with the cluster computer system to an application service provider; and

11   a third portion of logic configured to receive diagnostic audit information

12 generated by the application service provider, the diagnostic audit information

13 corresponding to at least a portion of the information associated with the cluster

14 computer system and determined by:

15   defining a plurality of system configuration categories associated with the

16 plurality of system configuration parameters;

17   defining a threshold benchmark for each of the plurality of system

18 configuration categories, each of the plurality of threshold benchmarks based on a

19 predefined set of rules;

20   associating each of a portion of the plurality of system configuration

21 parameters for each of the plurality of nodes with one of the plurality of system

22 configuration categories; and

23   comparing each of the portion of the plurality of system configuration

24 parameters for each of the plurality of nodes to the threshold benchmark for the

25 associated system configuration category.

1   52. The computer-readable medium of claim 51, wherein each of at least a

2 portion of the plurality of system configuration parameters are redundantly collected.

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1   52.   The computer-readable medium of claim 51, wherein the plurality of

2   system configuration categories comprise a processing parameter, a storage parameter,

3   a network parameter, an operating system parameter, an applications parameter, and a

4   user parameter.

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1   53.   The computer-readable medium of claim 51, wherein the plurality of

2   system configuration categories comprise a processing parameter, a random access

3   memory (RAM) parameter, a virtual memory parameter, a disk storage parameter, a

4   network parameter, an operating system parameter, an applications parameter, and a

5   user parameter.

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1   54.   The computer-readable medium of claim 51, wherein the plurality of

2   threshold benchmarks involve a relative ranking process.

56
1   55.   The computer-readable medium of claim 51, wherein the plurality of

2   threshold benchmarks are normalized thresholds based on a distribution of historical

3   data.

57
1   56.   The computer-readable medium of claim 51, further comprising a

2   fourth portion of logic configured to present the audit information on a graphical user

3   interface.

58
1   57.   The computer-readable medium of claim 51, wherein the information

2   associated with the cluster computer system is provided to the application service

3   provider via electronic mail.

59
1   58.   The computer-readable medium of claim 51, wherein the information

2   associated with the cluster computer system is provided to the application service

3   provider via the Internet.

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59. The computer-readable medium of claim 51, further comprising a fifth portion of logic configured to pay for the diagnostic audit information.